

IN THE CLAIMS:

Please cancel claims 1-23 without prejudice.

Please add new claims 24-44 as follows:

This listing of claims will replace all prior versions, and listings, of claims in the application.

STATUS OF CLAIMS

Claims 1-23 (Cancelled)

24. (New) A method of diagnosing cancer in a human patient comprising:

a) determining the level of a nucleic acid in a patient sample, said nucleic acid comprising a nucleotide sequence having at least 95% sequence identity to SEQ ID NO:114, or a full complement thereof, in a patient sample; and

b) comparing said level of the nucleic acid in (a) to a level of the nucleic acid in a second sample, said second sample comprising a negative control;

wherein an increase of at least 50% between the level of the nucleic acid in (a) and the level of the nucleic acid in the second sample indicates that the patient has cancer.

25. (New) The method of claim 24 wherein the increase is at least 100% compared with the negative control.

26. (New) The method of claim 24 wherein the increase is at least 200% compared with the negative control.

27. (New) The method of claim 24 wherein the nucleotide sequence is SEQ ID NO:114.
28. (New) The method of claim 24 wherein the cancer is selected from the group consisting of colon cancer, prostate cancer, breast cancer and lung cancer.
29. (New) The method of claim 24 wherein the cancer is colon cancer.
30. (New) A method for diagnosing colon cancer, prostate cancer, breast cancer and lung cancer comprising:
- a) determining the level of expression of a gene comprising or encoding a nucleic acid comprising a nucleotide sequence at least 95% identical to SEQ ID NO:114, in a patient sample comprising colon, prostate, breast or lung tissue; and
 - b) comparing the level of gene expression in a) to a level of expression of the gene in a normal control;
- wherein a difference between the expression of the gene in the patient compared to the level expression in a negative control indicates that the patient has colon cancer, prostate cancer, breast cancer or lung cancer.
31. (New) The method of claim 30 wherein the difference is an increase of at least 100% compared with the negative control.
32. (New) The method of claim 30 wherein the difference is an increase of at least 200% compared with the negative control.
33. (New) The method of claim 30 wherein the nucleotide sequence is SEQ ID NO:114.

34. (New) A method of diagnosing cancer in a patient, said method comprising:

(a) contacting a polynucleotide that binds to mRNA comprising the nucleotide sequence of SEQ ID NO:114 with nucleic acids of a biological sample acquired from said patient under highly stringent conditions to form a duplex; and

(b) comparing the amount of the duplex formed to the amount of duplex formed when the polynucleotide is contacted with nucleic acids of a biological sample acquired from a normal control,

wherein an increase of at least 50% in the amount of duplex formed upon contacting said polynucleotide and said nucleic acids of the biological sample acquired from said patient compared to the amount of duplex formed upon contacting said polynucleotide and said nucleic acids of the biological sample acquired from a normal control is indicative of the presence of cancer in said patient.

35. (New) The method of claim 34 wherein the cancer is selected from the group consisting of colon cancer, prostate cancer, breast cancer and lung cancer.

36. (New) The method of claim 34 wherein the cancer is colon cancer.

37. (New) A method for detecting a cancerous cell in a patient sample comprising:

(a) detecting a level of a gene product, said gene product comprising or encoding a nucleotide sequence of SEQ ID NO:114, or a full complement thereof, and

comparing the level of the gene product in the test sample to a control level of said gene product;

wherein the presence of a cancerous cell is indicated by an increase in the level of the gene product in the patient sample in comparison to a control level of the gene product.

38. (New) The method of claim 37, wherein said detecting step uses a polymerase chain reaction.
39. (New) The method of claim 37, wherein said detecting step uses hybridization.
40. (New) The method of claim 37, wherein said sample is a sample of colon, prostate, breast or lung tissue suspected of having cancerous cells.
41. (New) The method of claim 37 wherein the cancer is selected from the group consisting of colon cancer, prostate cancer, breast cancer and lung cancer.
42. (New) The method of claim 37 wherein the cancer is colon cancer.
43. (New) A method of screening for anticancer activity comprising: (a) providing a cell that expresses a cancer associated (CA) gene encoding an expression product comprising a nucleotide sequence at least 95% sequence identical to a sequence of SEQ ID NO:114, or a full complement thereof; (b) comparing the level of the expression product in a sample comprising the cell in the presence and absence of an anticancer drug candidate; and (c) monitoring an effect of the anticancer drug candidate on an expression of the CA gene in the tissue sample, wherein a difference of at least 50% in the levels of the expression product in the presence of the anticancer drug candidate compared to the levels of the expression product in the absence of the anticancer drug candidate indicates that the anticancer drug candidate has anticancer activity.
44. (New) The method of screening for anticancer activity according to claim 43, wherein the CA gene encodes an expression product comprising a nucleotide sequence of SEQ ID NO:114.